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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,426	12/03/2003	Dennis R. Simons	246079US6	4013
22850	7590	10/13/2006		
C. IRVIN MCCLELLAND OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER HOFFMANN, JOHN M	
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 10/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/725,426

Applicant(s)

SIMONS ET AL.

Examiner

John Hoffmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 16 August 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1) ☒ Certified copies of the priority documents have been received.
2) ☐ Certified copies of the priority documents have been received in Application No. _____.
3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Geittner et al. ("PCVD at High Deposition Rates, Journal of Lightwave Technology, Vol. LT-4, No. 7, July 1986) in view of Roba (4,608,070) and Davis (4,664,689).

3. See the prior Office actions for the manner in which the art is applied.

Response to Arguments

4. Applicant's arguments filed 16 August 2006 have been fully considered but they are not persuasive.

It is argued that the prior art does not suggest any relationship between the Reynolds number and the deposition efficiency. This is deemed largely irrelevant because the relationship need not be recognized to demonstrate obviousness. The fact that applicant recognized a new way to characterize what was already known is not evidence of non-obviousness. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Applicant argues that there is no incentive for the artisan to calculate the Reynolds number to confirm the flow conditions. This does not appear to be relevant because the claims do not require calculating to confirm flow conditions.

As to the calculations purported to show that the present examples fall outside the range taught by Geittner: 1) applicant merely alleges the equation is well-known – but no evidence is supplied to support this assertion. Assertions cannot take the place of evidence. 2) It is largely irrelevant whether applicant's preferred embodiments fall outside Geittner's range because the present claims are not limited to the preferred embodiments.

It is further argued that since Roba's IVPO process produces particles and the present PCVD does not produce particles, that the two processes are "very different" and have no "technical relationship" between each other. There is no evidence or rationale present to support this conclusion. Rather, at page 1, line 18 applicant refers to US Patent 4314833 – which shows at figure the difference between the two modes can be a little as the diameter of the tube. Thus it is clear the two process are nearly the same – and not "very different". Thus, Roba's clear teaching that the process is "strictly dependent upon the flow of the gases" and flow "must be limited" is not to be discounted. It has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Applicant and Roba are focused on the same problem:

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maximizing deposition rate and maintaining glass quality – and controlling flow to do so.

It is further argued that Roba has different temperatures and pressures. This is deemed to be not very relevant – based on the broad teaching that the flow is an important variable. Applicant argues that the rejection is based on “obvious to try” rationale. Examiner disagrees because Geittner discloses that laminar flow is an important property in PCVD. Therefore it does not seem reasonable that given the Geittner teaching, one would disregard a teaching which comes from a similar deposition process.

It is further argued that Geittner uses only extrapolated process data. The relevance of this point is not pointed out – nor does it appear to be relevant to Examiner. Moreover, Applicant gives no explanation as to why it is an extrapolation. Figure 2 of Geittner clearly shows data points which one normally indicates actual experimental data points.

Lastly it is argued that Applicant has a narrow Re range 120-285 – but that laminar flow is much broader 0-2500. First it is noted applicant has given no evidence that the laminar flow range is 0-2500. Second, the evidence shows that that deposition quality is “strictly dependent up the flow of gases”. This is a clear teaching that the flow is a result-effective variable which would have been obvious to optimize.

To summarize: the prior art recognizes that if the gas flow rate is too high, poor flow characteristics are detrimental and if the flow rate is too low, productivity is decreased. Thus one would be motivated to optimize the flow into tube. The flow rate

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inherently determines the Reynold's number. Rather than optimizing the flow rate, Applicant apparently optimizes a substitute variable – the Reynolds number. It is clear if one optimizes the flow rate, that the Reynold's number is ALSO INHERENTLY OPTIMIZED. See Applicant's 12/15/2005 response, page 7 which indicates that flow rate is proportional to the Reynold's number.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

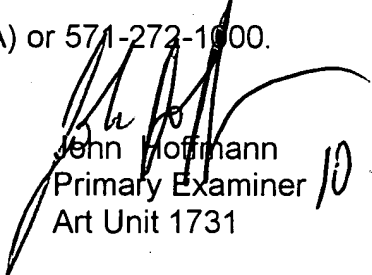
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Jenn Hoffmann
Primary Examiner
Art Unit 1731

10-10-06

jmh